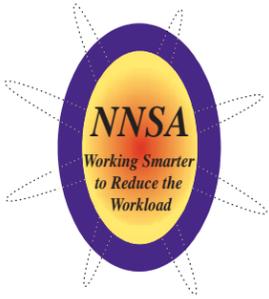


NEWSLINE

Published weekly for employees of Lawrence Livermore National Laboratory

Friday, March 29, 2002

Vol. 27, No. 13



FROM THE DIRECTOR'S OFFICE

Merna Hurd
Lee Younker

Group examines plans to trim workload 'burdens'

Recently, NNSA Administrator John Gordon unveiled his plans to eliminate a layer of field management and to re-engineer the operations of the nation's nuclear weapons complex. As input to NNSA's re-engineering efforts, each NNSA lab and production site was asked to submit a report recommending measures that NNSA could take to reduce the "administrative workload burden" by 50 percent on the scientific, production and technical staffs. Reports have been submitted and several NNSA-wide work groups are tasked with defining those actions required to have a NNSA streamlined operation in place by January 2003.

The challenge of responding with meaningful recommendations within a short timeframe required us to focus on work processes with the greatest impact on our workforce. The "burdens" considered included: (1) activities that divert scientists from research, (2) time requirements or delays that affect research or production schedules, (3) unnecessary restrictions or barriers to work, and (4) total cost impacts that erode R&D funds.

Several sources of information were used including input from representative scientists and engineers from the program, technical and support organizations. We interviewed program and project leaders throughout LLNL to determine what actions could have the greatest positive effect on morale and productivity. In addition, there was active participation of the Strategic Operations Forum, which includes deputies from each of the directorates, guiding the development of LLNL's recommendations.

Conclusions about the impact of excess administrative workload on the execution of our missions are sobering. Our report pointed out that administrative burdens have increased markedly in the past few years. This increase has been exacerbated by the inefficient implementation of safety-and security-related systems and processes, and by growing requirements for reporting and oversight.

Every area of the Laboratory has been affected, often in differing ways. Some areas such as experimental science and Work-for-Other (WFO) projects serve as a warning — much like canaries in a coalmine — where the impacts of administrative tasks are threatening project success. Similar reports and recommendations were provided in reports from other NNSA laboratories and contractors.

See **DIRECTOR'S OFFICE**, page 8

Physicist named Fulbright scholar

By **Anne M. Stark**

NEWSLINE STAFF WRITER

If all goes according to plan, physicist Charles Carrigan and his family will be on a jet to England come July 1. And he won't be on vacation.

Carrigan, who works in the Geosciences and Environmental Technologies Division, has been selected as one of typically 11 recipients of the prestigious Fulbright Scholar award to the United Kingdom. He has been invited by the Department of Earth Sciences at Cambridge University to pursue research in



JULIE KORHUMMEL/NEWSLINE

Charles Carrigan

the UK. He also has been selected as a visiting fellow of St. Edmund's College, which is one of the colleges comprising Cambridge University.

Only four U.S. faculty and professionals received awards to travel to the UK in the "general category" of the Fulbright award this year. Applicants like Carrigan, whose specialties do not fit into the established categories of the Fulbright, apply in this category.

Carrigan, 52, chose Cambridge because of the institution's repu-

See **CARRIGAN**, page 8



JULIE KORHUMMEL/NEWSLINE

Clive Ruggles, a professor at the University of Leicester in England, illustrates his lecture on archaeoastronomy with pictures of Stonehenge and its relationship to the cosmos during his DDLS talk Tuesday.

DDLS speaker links artifacts to cosmos

By **Anne M. Stark**

NEWSLINE STAFF WRITER

In the southeastern portion of the rocks and wooden posts encircling Stonehenge are the bones of animals and human cremations that were "placed carefully in the post holes."

The placement of these objects correlates with the most southerly rising of the moon.

"It mattered where they were putting them," said Clive Ruggles, a professor of the School of Archaeology and Ancient History at the

See **DDLS**, page 8

Lone offenders pose biggest terrorist threat

By **Jeff Morris**

SAFE PROGRAM

One of the most elusive terrorist threats to this country is the lone offender — the rejected, frustrated loner who can connect to an ideology and to violence, but not to a social group, even if that social group is a terrorist organization.

That was the premise of a talk



Kathleen Puckett

Tuesday by Kathleen Puckett, psychologist and former FBI special agent, who spoke on behalf of the Security Awareness For Employees (SAFE) program. It was also the central finding of a study Puckett completed for the FBI last year in collaboration with seven other mental health professionals.

See **SAFE**, page 7



'Teller Tech'
begins

— Page 3



Cochran testifies
in New Mexico
— Page 4



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Friday
29

The Lab Bible Study Groups are sponsoring a **Good Friday gathering**, featuring reflection time, music and singing, from 12:05-12:45 p.m. in the Bldg. 543 auditorium. The event is open to all Lab and Sandia employees. No food is permitted in the auditorium.

Monday
1

Spring holiday. The Laboratory is closed today.

Tuesday
2

The quarterly LLESA and American Red Cross **blood drive begins today** and continues through Friday. It will be held in Bldg. 415 from 8:30 a.m. to 2 p.m. today, and 8:30 a.m. to 1 p.m. Wednesday through Friday. A dedicated taxi service has been arranged for the blood drive as parking is limited. Appointments can be made in advance at <http://www.beadonor.com> (company code: LLNL) or by calling the LLESA Office at 2-9402. Drop ins will be worked into the schedule.

...

The **Career Center Brown Bag Series** is back. The first session features Suzanne Beauregard, who will present information on St. Mary's School of Extended Education's Bachelor of Arts in Management degree program. The talk takes place at noon, in Bldg. 571, room 2301. Contact: Sharon Giovannoni, 2-5571.

Thursday
4

An employee briefing on **"Performance Appraisals — Planning your Input & Discussion"** will be offered for employees who would like an overview of the performance management process at the Lab. This briefing will be held from 11 a.m. to noon in the Bldg. 361 auditorium. Registration not required. Come early to reserve your seat. Contact: EODD, 2-4842.

Friday
5

A representative from **California Casualty Insurance** will be in the Benefits Office. Appointments are required and may be scheduled by calling 2-9955.



Lab TV

Broadcast
Schedule

The DDLS talk on **"Archaeo-astronomy — Stonehenge and beyond,"** by Clive Ruggles will be rebroadcast on Lab TV channel 2 on Thursday at 10 a.m., noon, 2, 4 and 8 p.m., and on April 5 at 4 a.m.

Lab employees honored for donating blood

In appreciation for donating blood, Christopher Lee (photo above) receives a commemorative pin and certificate from Ken Giannotti, LLESA general manager, and Cherie Evans, Red Cross medical director, Northern California region. Phil Bureau (photo below), director of Recruitment & Marketing for the Red Cross, spoke to the honorees on the number of lives they've helped to save.



PHOTOS COURTESY OF LLESA

Lab shuttle now offers service to ACE train station

Effective Tuesday, LLNL will provide a complimentary shuttle service to and from the ACE train station on Brisa Avenue in Livermore. Wheels recently announced that it can no longer provide this service.

The shuttle will operate Monday through Friday on the following schedule: — Westbound Livermore train at 6:37 a.m. and 7:43 a.m. — Eastbound Livermore train at 5:18 p.m. and 6:28 p.m.

Service will not be provided on Lab holidays. The shuttle will accommodate 16 passengers. The

shuttle service will drop off riders at their work location in the morning and pick up riders at the end of the workday for transportation to the Eastbound train.

Interested employees need to call Fleet Management at 2-7481 to schedule service from their work location.

Passengers with special transportation needs such as wheelchair access should notify Fleet Management at 2-7481 to make a reservation 24 hours in advance. ACE shuttle service is limited to Lab and Sandia personnel.

RETIREMENTS

Craig Knecht

A retirement party for Craig Knecht is planned for Thursday, April 18, at 11:30 a.m. at the Willow Tree in Dublin.

Knecht is retiring after managing the computer center in AIS for 21 years.

Cost for his retirement party is \$15,

which includes a buffet lunch, tax, tip and gift.

RSVP by April 10 to Lisa Phillips at 3-2776 or phillips64@llnl.gov. If you have a story about Knecht that you would like to share at the luncheon, please let Phillips know.

IN MEMORIAM

Betty Ann Dolen

A memorial service is planned for Lab retiree Betty Ann Dolen on Thursday at 5 p.m. at First Presbyterian Church in Livermore. She died March 20 at her home in Livermore. She was 76.

Dolen was born May 17, 1925, in Hominy, Okla. She moved to Livermore in 1957 and worked at the Lab for 18 years as an administrative assistant to AD-at-large Carl Haussmann.

She was a member of the First Presbyterian Church of Livermore, where she was an active participant in the church activities, as well as the wedding coordinator for seven years. Included in her many community services, she was an active member of the Valley Memorial Hospital Auxiliary.

Dolen's interests included homemaking, gardening, entertaining and travel, both in the United States and in Europe.

She is survived by her sons, David Kirk of Silverdale, Wis., and William Kent of Eastland, Texas; daughter, Mary Carol McIntire of San Luis Obispo; and granddaughters Naleena Dolen and Lara Adams. She was preceded in death by her

brother, William E. Novak, in 1992.

Remembrances may be made to the memorial fund of the First Presbyterian Church of Livermore.

Newslines

Newslines is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

Contacts:

Managing editor: Lynda Seaver, 3-3103

Contributing writers: Don Johnston, 3-4902; Elizabeth Rajs, 4-5806; David Schwoegler, 2-6900; Anne Stark, 2-9799; Steve Wampler, 3-3107; Gordon Yano, 3-3117. For an extended list of Lab beats and contacts, see <http://www.llnl.gov/llnl/06news/NewsMedia/contact.html>

Designer: Julie Korhummel, 2-9709

Distribution: Mail Services at LLNL

Public Affairs Office: L-797 (Trailer 6527), LLNL, P.O. Box 808, Livermore, CA 94551-0808
Telephone: (925) 422-4599; Fax: (925) 422-9291
e-mail: newsline@llnl.gov or newsonline@llnl.gov
Web site: <http://www.llnl.gov/PAO/>

Printed on recycled paper

1952 – 2002

MAKING HISTORY, MAKING A DIFFERENCE



Serving as part of the University of California

This is an ongoing feature highlighting the Lab's 50-year history. This week we take a look at the year 1964.

In the early 1960s, Edward Teller championed the need for a graduate program in applied science. He envisioned a university-level educational facility established at Livermore and negotiated an agreement to create the UC Davis Department of Applied Science as part of UC Davis' new College of Engineering.

With a trailer for administrative offices and two rooms in an old barracks building for classrooms, the UC Davis Department of Applied Science was officially dedicated on January 16, 1964. Teller served as the department's first administrator, and his staff included one full-time employee as well as a half-time vice chairman. In 1977, a permanent building for the department was dedicated just outside the Laboratory's gates, with former Vice President Nelson Rockefeller on hand for the ceremonies.

Since its inception, the Department of Applied Science, often referred to as "Teller Tech," has awarded 370 Ph.D.s with about 50 percent of its graduates taking their first job at the Laboratory. Today, the Department of Applied Science has 24 faculty members and 90 graduate students, all of whom are full-time students.



Former Vice President Nelson Rockefeller (shown with Edward Teller and Director Roger Batzel) visited the Laboratory in 1977 to dedicate the new building for the Department of Applied Science.

'Teller Tech'

1964

Begins

Around the world

- First Chinese A-bomb tested
- UN peace force takes over in Cyprus
- Vietnam War escalates
- Ranger VII returns close-up photos of moon
- Nelson Mandela sentenced to life imprisonment

Around the nation

- Johnson re-elected president
- Civil Rights Bill passed
- Surgeon General issues report linking smoking to lung cancer
- Jimmy Hoffa brings all truckers under Teamsters Union

- Medicare Act signed to provide health insurance to people 65 and older
- Boxer Cassius Clay defeats Sonny Liston for heavyweight championship

Around the Lab

- John Foster is Lab's director
- Number of employees sharply increases in early 1960s
- Major Lab work includes nuclear weapons research, development, and testing; magnetic fusion; inertial fusion; and peaceful nuclear explosives testing. The Biomedical and Plowshare Programs were both established.

in other

NEWS

Significant events around the world, the nation and at the Lab.

See the Timeline: <http://www.llnl.gov/timeline/>

See anniversary stories: http://www-r.llnl.gov/50th_anniversary/history.htm

Laboratory employees sound off on 'Labspeak'

Dave was "matrixed" from his job in "the batting cage" to do "programmatic" work. His friends say he was "NIF-fed" to do a "crash job," one that requires the expertise of a "dot 3" type. In the evening he might head home and relax with an "Old Rad Lab," "whatever that means."

What this first paragraph means is that Dave was basically transferred from his job in the Superblock to do an important job for NIF. The dot 3 refers to his job classification. Those who obtain the .3 status, as one employee put it, are said to be "the super geeks who know their stuff." Hence Dave gets the call.

Old Rad Lab is a legendary libation known to the longest-employed Labbies. It's a mix of 180 proof alcohol (intended as a cleaning solvent) and mixed with a little fruit juice, or in some cases citric acid straight off the shelf — of course, never consumed on site.

Finally "whatever that means" is purported

to be standard Lab management speak whenever concluding lengthy discussion on subject matter said managers may not understand.

These are just a few of the examples of "Labspeak" submitted by employees who responded to our request as part of the Lab's 50th anniversary celebration.

It doesn't take newcomers to the Laboratory very long to figure out employees round these parts have a language all their own. Some of it makes sense — once you've worked here for a few years. At other times, this complex language seems like an exercise in redundancy, not to mention confusion. For example, how many of you out there have used the phrase NIF facility? Apparently a lot of you, because there were a number of submissions for that one. (For those of you not in the know, NIF stands for National Ignition Facility. So calling it NIF facility is a bit Labocratic — yet another submission.)

What follows is a collection of common, and maybe not so common, terms for Labspeak, presented in no particular order.

See how many you know, and how many you find yourself using. Special thanks go to all those employees who submitted suggestions.

- "Limited" and "unlimited" — in the real world, these are employees who are paid by the hour (as in limited) and those who are salaried. The Lab also likes to refer to these two types of employees as "non-exempt" and "exempt."

- Projectize an effort — A method for adding a lot of syllables to the basic message of "do the job."

- Are you a dot 1, dot 2 or dot 3? The .1 .2, .3 relates to job classifications, such as 593.1, 593.2, 593.3. It is noted as .1 being a junior, .2 mid range, and WOW if you are a .3.

See LABSPEAK, page 5



NEWS YOU CAN USE

BRIEFLY

Cochran testifies in New Mexico

Lab Executive Officer Ron Cochran, left, testified Tuesday in New Mexico in front of the California Senate Select Committee on the Oversight of the DOE Laboratories operated by UC. He was on a panel with Bob Van Ness, assistant vice president of Laboratory Management. The panel addressed the University's contract with DOE, including such topics as goals, major provisions, budget, accountability, security and workforce.



Materials Research Society meeting

Laboratory scientists will present special sessions on "Homeland Security: Science and Counter-Terrorism" at the Materials Research Society spring meeting and exhibit at the San Francisco Marriott and Argent hotels Monday through April 5.

Jeff Wadsworth, deputy director for Science and Technology, will deliver the plenary address at 6 p.m. Wednesday in the Argent Hotel's Metropolitan Ballroom. Wadsworth will discuss how science and

technology played a pivotal role in winning the Cold War and how science and technology are being applied to the new challenges posed by the threat of terrorism.

Jay Davis, National Security Fellow in the Center for Global Security Research, will chair a panel discussion on "Science and Counterterrorism: How Can the Materials Research Community Participate and Help?" at 6 p.m. Monday at the Marriott.

Other Lab materials scientists and engineers will be participating in technical sym-

posia, which are divided into four basic topics: Electronic and Optoelectronic Materials; Molecular and Biomaterials; Nano/Microstructured Materials and a general category. The Chemistry and Materials Science Directorate helped organize the Homeland Security portion of the MRS meeting in San Francisco.

For complete information on the meeting and special programs, check the MRS Website: <http://www.mrs.org/spring2002/program>.

Technical Meeting Calendar

Friday
29

MATERIALS SCIENCE & TECHNOLOGY

"Computational and Theoretical Study of Liquids and Glasses Under Tension," by

Vincent Shen, Princeton University. 10:30 a.m., Bldg. 235, gold room (uncleared area). Contacts: George Gilmer, 3-0697, or Roberta Marino, 3-7865.

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"The Perfect Storm on a Neutron-Star Surface During Type-I X-Ray Burst," by Yuri Levin, UC Berkeley. Noon, Bldg. 319, room 205 (badge required). Contacts: Chris Mauche, 2-7017, Josie Morgado, 4-5201.

MATERIALS SCIENCE & TECHNOLOGY

"Efficient Conversion of Coal to Electricity Using Carbon Fuel Cells," by John F. Cooper, LLNL. 3:30 p.m., Bldg. 235, room 1090 (uncleared area). Coffee and cookies will be served at 3:20 p.m. Contact: Thomas E. Felter:2-8012.

H DIVISION

"Maskless Micro-Ion-Beam Reduction Lithography (MMRL)," by Vinh Van Ngo, LBNL. 10:30 a.m. Bldg. 194, room 1103 (badge required). Contacts: Palakkal Asoka-Kumar, 2-9671, or Donna Vercelli, 2-0976.

Monday
1

UC DAVIS, DEPARTMENT OF APPLIED SCIENCE

"Control of Optical Modes and Spontaneous Emission in Silicon Photonic Crystals," by

A. Polman, FOM-Institute AMOLF, Amsterdam. 4 p.m., Bldg. 661 (Hertz Hall), room 7 (open area). Refreshments served at 3:30 p.m. for a "meet the speaker" session before seminar. Contact: Estelle Miller, 2-9787.

Tuesday
2

PHYSICS & ADVANCED TECHNOLOGIES

"Development of Practical Detection Platforms for Biological Terrorism," by Bill Colston. 2 p.m., Bldg. 123,

Conference Room A (badge required). Contact: Ralph Jacobs, 4-4545, Stefanie Landes, 2-3201.

Wednesday
3

APRIL 3-5 NIF PROGRAMS

Workshop on the nonlinear saturation of stimulated Raman and Brillouin instabilities for plasma and

laser parameters of interest to inertial fusion confinement and high energy density science. April 3-5, Wente Vineyards, Livermore. Contact: L. Divol, 4-2271.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Numerical Methods for Air Pollution Modeling and Simulation," by Florian Potra, University of Maryland. 2 p.m., Bldg. 551W, room 1400 (uncleared area). Contacts: Radu Serban (CASC) 4-4852, or Leslie Bills, 3-8927.

PHYSICS & ADVANCED TECHNOLOGIES

"Two Applications of Accelerator Mass Spectrometry: Hiroshima Dosimetry and Measurements of Plutonium," by Jeffery McAninch, ThermaWave, Inc. 1:30 p.m., Bldg.

211, room 227 (badge required). Contacts: Dennis McNabb, 3-0749, or Pat Smith, 2-0920.

LIVERMORE COMPUTING

"Preview of the Parallel Debugger, TotalView, Version 5.1," by John DeSignore, Etnus, LLC. 10 a.m., Bldg. 451, room 1025 (uncleared area). Coffee will be served at 9 a.m. Contact: Karen Warren, 2-9022.

Thursday
4

PHYSICS & ADVANCED TECHNOLOGIES

"Quantum Interferometry with the STAR Time Projection

Chamber," by Spencer Klein, LBNL. 1:30 p.m. Bldg. 211, room 227 (badge required). Contacts: Ron Soltz, 3-2647, or Pat Smith, 2-0920.

Friday
5

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Stellar Populations Near the Galactic Center: Not the Usual

Suspects," by Mark Morris, UCLA. Noon, Bldg. 319, room 205 (badge required). Contacts: Adam Stanford, 3-6013, Rosemarie Cortez-Kudo, 3-0621.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

AROUND THE LAB



Lab employees win fusion energy research grant

By Anne M. Stark

NEWSLINE STAFF WRITER

Two Livermore Lab researchers are participating in one of two new projects nationwide to win a fusion research grant from the Department of Energy's Office of Fusion Energy Sciences.

Peter Beiersdorfer and Mark May have won a two-year \$230,000 grant to manufacture and install diagnostics on the tokamak at MIT.

The tokamak is a tool used in a laboratory setting to create and confine plasma within a powerful magnetic field. From there, scientists use a variety of diagnostic tools to determine temperatures and conditions that achieve the highest ener-

gy confinement.

The two scientists will manufacture a plasma rotation diagnostic to help determine what plasma parameters give the best confinement of energy, Beiersdorfer said.

"The diagnostics will use a six-inch transmission grating," he said. "This will give us a fast time response and high spatial resolution to monitor a localized area of good confinement."

If plasma with a high-energy confinement can be obtained, scientists believe that it could create a thermonuclear reaction.

The transmission grating originally was created by the laser program and used on the Lab's electron beam ion trap facility for basic atomic sci-

ence. Since it performed so well, Beiersdorfer said he and May were looking for new uses for it.

He said the diagnostics will take approximately two years to manufacture and install on the MIT tokamak. After that, Beiersdorfer and May hope to have their grant renewed so they can continue their research for another three years by conducting experiments with the new diagnostic.

DOE has awarded about \$4 million to 15 institutions, chosen from 39 proposals received. The two new efforts include May's and Beiersdorfer's proposal and a project by Manfred Bitter at the Princeton Plasma Physics Laboratory. The remaining 13 projects are renewals of previously funded efforts.

Many existing motor vehicle laws also apply to those riding scooters

Editor's note: Ever since these vehicles began to appear on site, the subject of motorized scooters has surfaced several times at Traffic Safety Committee meetings. This article was prepared by Traffic Officer Traci Rebiejo of the Livermore Police Department, and is presented here through the efforts of PFD Lt. Mark Short, a member of the Traffic Safety Committee.



Traci Rebiejo

Motorized scooters can be lots of fun. At first glance they may seem fairly harmless, but they also can be dangerous if not driven responsibly. Many of the existing laws that pertain to other motor vehicles also apply to motorized scooters. For instance, driving under the influence is applicable on scooters. But there are several recent laws that pertain specifically to scooters and that address the serious hazards that they can pose.

Here are applicable regulations from the California Vehicle Code, starting with the definition, which is: "Any two-wheel device that has handlebars, is designed to be stood or sat upon by the operator, and is powered by a motor capable

of propelling the device with or without human propulsion."

The scooter must have an engine or motor "kill switch" that activates when released or when the brakes are applied. Motorized scooters cannot emit excessive noise, which usually results from a modified exhaust system. Although the operator must be at least 16 years of age, a driver's license is not required nor is insurance, registration or license plates.

The handlebars must be at or below the level of the operator's shoulders, and the

operator must keep at least one hand on the handlebars at all times. Any operator, including adults, must properly wear a bicycle helmet. And operators are forbidden from carrying any passengers.

Scooters may not be operated on a sidewalk. They may not be operated at speeds greater than 15 mph, or on any streets with a speed limit more than 25 mph — unless operated in a marked bicycle lane. The operator may not attach him- or herself — or the scooter — to any other vehicle to

"hitch" a ride. When it comes to parking, the operator may not park the scooter on a sidewalk if it blocks the path of the sidewalk.

A specific provision forbids an operator to make a left turn at an intersection. The operator must stop and dismount at the right hand side of the roadway or curb. Then complete the turn by crossing the roadway on foot.

Riding at night requires additional equipment. The scooter must have a white headlight visible 300 feet from the front and the sides, as well as a red reflector on the rear — or attached to the operator of the scooter — visible from 500 feet. The scooter also must have a white or yellow reflector on each side visible from 200 feet in front and to the rear.

The operator of a motorized scooter may be cited by a police officer and ordered to appear in court for violating the laws regulating these vehicles. Parents and guardians of a minor may be liable for injury to persons or property that occur as the result of a collision.

The Livermore Police Department's Traffic Unit and the Lab's Traffic Safety Committee are hopeful that publicizing these laws will make riding safer, both at the Laboratory and on city streets. Parents, juvenile and adult riders are urged to weigh the risks and know the laws before purchasing or operating a motorized scooter.

LABSPEAK

Continued from page 3

- On travel — It's called a business trip everywhere else.
- Ol' Radlab — The mix of alcohol and fruit juice. This is rumored to be a proper drink among employees during the 1970s.
- "I got a crash job for you to do" — meaning I need it now.
- Green Area, Red Area, Open Area. These terms can be confusing to employees in the post Hazel O'Leary area. Translation: Green means you must have Q- or L-clearance to enter; Red is the province of P, Q or L clearances, while, Open Areas (a thing of the past in this post 9/11 environ) require no badge. For those of you still waiting to "go green" head directly to...
- "The cooler" — an infamous area where employees conducted their duties while patiently awaiting their clearances. Once you turn green it is customary to bring doughnuts. To wit: "Who brought the doughnuts?" "Mary, she's gone green."
- An "event" is a nice way of describing a nuclear explosion with diagnostics.
- The "device" is the developmental version

of the nuclear explosive.

- "He got NIF-fed" means he was transferred (remember not NIF Facility).
- "The batting cage" — this is the Superblock.
- "The 3rd World" — a bit of elitism here. This is the term the large directorates sometime use for those programs smaller than their own. You know who you are.
- "Spreadsheet-science" — this is everything that isn't done on Livermore Computing supercomputers.
- "Plus-up" — supplemental funding that comes in mid-year.
- "Chicken Checker" — this has something to do with double checking of security containers.
- "PSO" — These are our Protective Service Officers. Don't call them guards.
- "Site 200" — Everybody knows about Site 300, but how many know that the main Livermore site is known as "Site 200"? Bonus question: What is Site 100? It's Lawrence Berkeley National Lab. Long before these facilities received their present monikers they were dubbed sites, as in 100, 200, 300.
- The L-TRAIN — At first glance you might think this has something to do with a link to BART. But you can't ride this train. You'd be "out of compliance" (another popular Lab phrase for someone or something that's incor-

rect). L-TRAIN is where you go to get additional training.

- "The double-click of that" — an odd way of saying "which means..."

Measurements — apparently the Lab has a lot of them that are familiar only to the site. For example:

- tap — 1 gram per centimeter-second.
- bar — 1 tap per microsecond.
- "shake" — 10 nanosecond increment of time. So if you're "back in shake" you are pretty fast.
- gillette — pulsed laser energy required to pierce 1 razor blade.
- jerk — 1,000,000,000 joules.
- kruger — 1 megaton per second (after LLNL scientist Hans Kruger).
- mcnamara — 400 megatons (after then-Secretary McNamara).
- sun — 0.1 watts per square centimeter.

Finally, we have a long list of acronyms. Whether you're an AD, DAD, PI, or Tech, or whether you work in NAI, NIF, BBRP or DNT, or E&E, to name just a few, you've probably caught yourself using them — even when you're not sure what all that alphabet soup means.

Only at the Lab could you be asked: "Is that IWS from LSED on NIF, a DUSA, UCNI or SRD? Don't know? Check with your ADC."



CLASSIFIED ADS

See complete classified ad listings at
<https://www-ais.llnl.gov/newsline/ads/>

AUTOMOBILES

1998 - Honda Accord LX, 33.5k miles, 4dr, AT, white/tan, excellent condition, \$13,700. 209-524-0904

1999 - Chevrolet Camaro, Beautiful! Excellent Condition. 35K miles - \$12,000 925-484-2217

1974 - Karmen Ghia for sale. Good restoration project \$750/BO 925-447-4345

1996 - Ford Explorer XLT V8 AWD, 67,000 mi, runs great, loaded, leather, excellent condition, original owner, \$12,900. 925-846-1453

1994 - Honda Accord EX Sedan Power window, doors, CC, Moon roof, 4cyl auto trans, very clean good maint records. 160K miles looks and runs great. \$5500 925-516-5850

1992 - Accord EX Coupe, Black, 5spd, 89,000 Miles, Orig. Owner, Very Nice Car. \$6499 925-373-6814

1973 - Cadillac El Dorado convertible. Garaged for last 3 years. Body & interior excellent condition, top needed. TLC needed asking \$4K 209-567-0312

1994 - Chevy Camaro, white, V-6, 5-speed, Bose AM/FM cassette stereo, new tires, alloy rims, cruise, air, very clean & reliable, \$4,500 OBO. 925-964-0534

1993 - Toyota SR5 4X4 5 speed, Longbed, Extended Cab Loaded! Shell, bedliner, dashcover Excellent Condition throughout 96.5K miles \$11,000 925-779-1756

1988 - Alfa Spider. Dark red convertible 2-seater with 2.0L Four and 5spd. Leather seats, power windows, alloy wheels. 52K miles. \$6000. 925-449-8783

1985 - Jeep CJ7 hardtop, new engine, radiator, clutch, battery, 5 new tires, custom rims, etc. Great for hunting or off-road fun. \$4900 or offer. 925-443-7408

1991 - Honda Ex Wagon loaded, new timing belt, very good condition. 172K miles \$4,800. 925-447-4406

1994 - Mazda Miata, White/Black, 86Kmi, AC, runs great. Clean. \$5200. 925-443-0802

1995 - Geo/Chevy-Prism LSI, 4dr: 1.8L w/Auto-OD, alloys, tinted-G, AC, CD, <88k-m, dual air bag, all maint-rec, new tires warr, mint cond, \$5,850 aft-6pm 209-832-2056

1994 - Dodge Ram Custom Van \$5,000 925-462-3055

1973 - Oldsmobile Toronado Classic. One owner. Always garaged. 142Kmi. Excellent condition. Must see to believe. \$2950 925-447-9969

1999 - VW Passat GLX, Loaded with all options + extras, always garaged in perfect condition, even smells like new! call for details \$22500 209-823-3211

1999 - Porsche Boxster Cabriolet 2D glacier white, blk-top convrtbl/blk leather interior/mint cond./4K mi/5 sp/AC/AM-FM/Cassette/Active Warranties/\$37900 650-522-8208

1997 - Geo Metro 2dr, 3cyl, 45mpg, 135k miles, dual front air bags. \$1200 OBO 209-239-2303

1985 - Cadillac Seville, golden, leather interior, V8, limited release, 150K miles, new trans., All PWR, One owner, good condition, smooth ride, \$2299. 650-522-8208

1953 - Studebaker Roadster frame and engine w/Delawri Coach Craft fiberglass convertible body on top. \$750.00 OBO Wife says MUST go! 925-449-5626

1987 - Honda Prelude, 85k miles, perfect car, \$11,500, 925-447-4969

AUTOMOBILE ACCESSORIES

15x7 MAG WHEELS, four bolt, from Ford, 1988 Mustang, fits others only \$60 for all 4 925-447-7070

1988 - 3.0 liter V-6 engine out of a 1988 Ford Taurus. Complete engine. For more

info, phone anytime during the daytime. 209-951-1934

New tire w/rim 205X75X15, P225X50XR16, 2 tires-185X70X14,84 Mazda shop Manual, 90 Mazda 626/Mx6 shop manual 925-735-6002 925-735-6002

4 Bridgestone tires & wheels. Dueler ATs 235-75R-15 on 15x7 5 on 5.5 Jeep wheels. Good cond. Asking \$100/OBO 925-373-6450

Third seat for cargo area of Ford Explorer, tan cloth, front/rear facing, seats 3. Used 2 months. Seat belts, headrests, and hardware incl. \$400 OBO. 925-757-6896

Honda Factory Repair Manual for 1984 Civic/CRX, Has details on all repairs of the vehicle, brakes, electrical, etc. \$20 925-484-4099

15 inch Six bolt Pickup TRUCK WHEELS, steel, 2 for \$30 Livermore 925-447-7070

BOATS

1993 Yamaha Wave Blaster w/ 1995 shore-lander trailer, custom flame paint, 701cc w/ low hrs. exc. cond. \$2400 obo. 510-690-1401

Bayliner, Anniversary Edition, 20.5ft, I/O (8 cyl. Merc, <150hrs!), walkthru bow, trailer. Absolutely MINT condition. Must SEE! \$11,000 925-779-1756

12 ft. aluminum boat with trailer, 9.8 Mercury outboard and electric motor plus extras, \$1500.00 OBO. 925-449-8297

ELECTRONIC EQUIPMENT

Computer battery backup, Scanner IIX17 SCSI w/ card, Monitors, etc 925-735-6002

PLAY STATION 2 GAMES, SSX Resident Evil, Zone of the Enders, Summoner, Frequency Dynasty, Warriors 3, Kessen 11, \$100/all or \$20/piece. 925-443-8889

2 HP Printers: HP845c - USB color inkjet, still in box, never opened. HP693c - Parallel port color inkjet, good condition. Best offer on either. 925-960-1005

Linear Phase 125 watt Hi Fi speakers with 12, 5, 3 inch drivers \$125.00 for the pair. 925-443-2245

GIVEAWAY

Tri-colored collie mix, male, all shots, free to good home. 209-833-6443

Dwarf Netherland White Bunny, about 8 months old. Comes with cage, water bottle. Free to good home. 209-833-6443

Gas Range, Kenmore, 15 years old 925-634-4974

FREE to good home, Buddy the Queensland Heeler/Border Collie, 5 yrs, male, current shots 925-371-7443

CA King top mattress. No spots or stains, very good condition. Very comfortable. 925-634-0649

Lawn chair, wood and canvas directors style: 3 Game-table chairs, green nau-gahyde, need some repair. 925-443-2245

HOUSEHOLD

CORNER COMPUTER DESK, very sturdy, in Livermore. Moving, must sell. \$30.00 925-443-2172

KIDS BUNKBED, red, bottom bunk-double, top bunk-single w/mattresses, great condition. \$60.00 925-443-7841

Kirby vacuum w/ shampoo attachments \$80. Fishcer Price kids table w/2 chairs. \$20 925-292-1877

Dk green/Maroon sofa \$400, Old oak desk \$100, 6 Black lacquer chairs \$60, Bookcase \$10 925-550-5369

Solid oak end tables (\$50 pr). Solid oak & glass open shelf/ entertainment unit beautiful octagon shape \$100. After 5:30 pm 209-835-3352

Refrigerator, GE. Works great, looks great. Almond, 18 CU. ft., ice maker. \$150 OBO. 510-440-9053

New Elvis pic/in frame, leather lift belt, large platform balance scale, new beach chairs, rear window-Mazda truck, drapes/rods, etc. see offer. 925-735-6002

Antique oak dresser. 20w x 43l x 33h w/mirror on top. 4 drawers. Very nice. Could use new knobs. \$250.00 offer. 925-829-1474

Oak swivel bar stools with backs (like new), \$50.00 each or \$125.00 for all three. Oak coffee table half circle, top rotates for full circle, \$35.00. 209-824-8750

Garage Sale! 1438 Lennox Lane, Livermore-Sat. 3-30, 8am, Sports Cards, Bike Trailer/Child, Stationary Bike, Small Antique Pooltable, Household, Toys. 925-371-1374

Two white enamel day beds (no trundles). \$60 each. 925-757-6896

Used hot tub for sale. Needs work. \$250. For details call 925-371-5524

Little Tikes Desk, NIB(\$55 new), \$35. Wooden Easel, w/ dry erase&chalkboard, \$25. 925-294-9022

Little Tikes Toddler Bed. Yellow, looks like VW Bug Car. Really Cute! \$75.00 209-858-2626

Curtains good for rental property, fabric with rods \$250bo, Computer furniture hxxwxd= 48x36x29 inches \$55 408-578-1792

Stereo cabinet: oak and walnut, 22x17x42in, w/smoked glass door and top. \$45. 209-823-5845

Solid oak roll top desk. Winners only, paid \$1200 asking \$700 obo, not a scratch! 925-516-8339

Bed Twin size. Jenny Lind headboard. Sealy mattress/boxspring. Used only 9 mo. Like new. \$115. 925-447-9969

Refrigerator/Freezer- good working condition, Harvest gold, \$100 OBO 209-239-2303

Solid cherry drop leaf dining table and 4 chairs, extra leaf \$200.00. 925-443-2245

Red naugahyde overstuffed chair \$25.00; wood frame, leather upholstered arm chair \$25.00. 925-443-2245

Doctors Balance type SCALE, accurate, fun \$45 925-447-7070

MISCELLANEOUS

PacBell 366 mhz pent. II, monitor, printer, \$400; tripod for direct TV satellite, \$60; JBL subwoofer, \$100; clarion head unit, \$100; CD changer, \$100. 449-0329.

Two SF Opera Tickets for CARMEN(06/08) and for GIULIO CESARE (06/29), orchestra, excellent location, \$135 each ticket sell for \$110. 925-935-5004

2002 Olympics Fleece Beret. Same style worn by USA Olympians. 2 for sale. \$40.00 each. 209-234-2050

Mens Watch-Gucci, Gold and ss w/ charcoal face and gold hands. Very attractive! Excellent condition. Pd. \$500+, will sell \$200 w/original box. 925-373-7434

White wicker chaise lounge & pad \$40. condition. After 5:30 pm 209-835-3352

Safety boots, Wolverine steel toe, size 9. Never worn. New\$165. Will sell at half-price. 209-833-1201

CHIPPER-SHREDDER, Craftsman 6.5HP OHV on two-wheel cart. Almost new. Includes all manuals. Call eves, weekends. \$350/OBO. 925-606-4365

Antique oak bathroom? dresser. 19w x 33l x 27h w/towel holder on top. Very nice, could use new knobs. \$200.00 offer. 925-829-1474

Seven piece patio table and chairs. Good Condition, \$95, OBO 925-245-1414

Red scallop yard edging (24 in) 40+pieces, \$20. Replacement bath vinyl window, 33x22in, \$15. 1-1/4in brad air nailer, new, \$75. 925-294-9022

Collectors Edition Monopoly Game w/glass cover. Sterling silver & 24 karat gold accents. 20 3/4 x 20 3/4 x 3. Cherry wood finish. New. \$375.00 925-292-8948

Indian moccasins beaded, child-size. Circa 1924-28. \$150 OBO 925-837-3073

Crib Bedding. Pastel Bunny Comforter, Sheet, Diaper Stacker, Bumper Pad and Mobile. Never used. Paid \$700. at JC Penny, asking \$300.00 925-292-0395

Microwave 1100 watts, 1.1 cu.ft. Turntable. Lots of option buttons. Used 9 mo. Like new. \$55. 925-447-9969

Pressure Washer Chor Master 1500 PSI 5 HP Extra Motor \$175.00 925-625-2574

Garage sale, multi-neighbor, Saturday only, March 30, 8-4:00. 1029 Megan Road, Livermore. 925-455-4210

Metal frame (free standing) hammock \$25.00. 925-443-2245

Brewery kit + some wine-making equipment. Everything except bottles. \$50 925-447-4969

MOTORCYCLES

1997 - Harley Davidson, Dyna, new condition, factory warranty, 14,000 miles, \$11,500, eve only 209-847-1231

1980 - Honda CB 750 SS, Classic, runs good. \$1200 / offer 209-836-5784

MUSIC INSTRUMENTS

Upright piano, Kohler and Campbell \$500 925-550-5369

PETS & SUPPLIES

CUSTOM CAT FURNITURE (I am back! :) Very appealing designs; high-quality construction; competitive prices. Five-paw rating! Call Howard at 925-606-0234

Dog Run, 6ft tall x 7.5ft wide x 13ft long. Like new. Assembled. Pd \$350 Asking \$250 925-961-0153

Akita Pups. 3 months old, Healthy. 1 male-2 females all must be altered, reputable show dog breeder. 925-449-5626

RECREATION EQUIPMENT

Stair-stepper machine. Digital display monitors your workout. \$35. 209-833-1201

14 foot diameter trampoline in good condition. Needs new pad over springs. \$25. 925-449-1324

Treadmill, like new, folds up out of the way. \$80/OBO. 925-373-0314

Snow Skis Dynastar 203 \$30bo, MTB Mongoose 20in frame and rear triangle \$95, New Michelin tire 195 R70x13 \$45bo 408-578-1792

RIDESHARING

Express your commute, call 2-RIDE for more information or visit <http://www-r.llnl.gov/tsmp>.

Modesto - Vanpool, Modesto to LLNL, 7:00 to 3:30 shift. 209-529-1010, ext. 3-0487

SERVICES

AERATE FERTILIZE AND DETHATCH YOUR LAWN FREE EST. maintenance mowing and reseeding also avil. 925-687-7356

WEDDINGS - Beautiful handcrafted Jewelry, custom designed, in your special colors for your special day. 925-606-0711

CoDA - Codependents Anonymous - Meets Tuesday Noon B571/R2016. 12 Steps Support BETTER RELATIONSHIPS! Just come or Info: 925-447-7070

SHARED HOUSING

Livermore - 1 Bedroom Avail in 2bdm/2bth apt close to lab, Nons moking female preferred, \$650/month 925-371-8678

TO TRADE

New huge down pillows/ cushions....need

HD new foam 20 in.X 20 in. (will trade) 925-735-6002

TRUCKS & TRAILERS

1987 - Chevy 1/2 ton 4X4 rebuilt motor, 6 in lift, big tires, tool box, flowmaster ex.Lots of extras, runs great \$5800 925-516-5850

2000 - Chevrolet 1/2 ton, 4X4, regular cab, short bed pickup - Z71 Package-fully loaded, 25,000 miles asking \$21,000. OBO 209-835-3938

1965 - 1965 Jeep Gladitor P/U, 1/2 ton, 4x4. Good project truck. \$2,000 or offer. 209-530-0156

1987 - Ford F150-XLT, EXT CAB,Camper Shell,Running Boards,Towing Package.151k-miles \$3,500.00 OBO. 925-706-7444

1990 - Ford F-250, XLT Lariat, Extended Cab, 7.3 Diesel, Reblt Trans, recent tires and shocks, runs great, extras. \$5500.00 OBO. 209-946-0645

1999 - Toyota Tacoma, 4x4, SR5 w/tow pkg, shell, liner, white, ps, pb, tilt, ac, 48k miles, transferable 100k mile warranty. \$17,500. cell# 209-743-6455

1996 - Ford F150XL- 4WD 5sp ExtCab GuidonShell Pipe Rack BedLiner BFG 6plyT/W DualF/tank Towing AC PS CC AM/FM/CD ABS 115k miles. \$9750 OBO 209-239-2303

2001 - Chevrolet - Z71 LT Ext. Cab 4-door, leather, tow package, nerf bars, Flow Master dual exhaust and more. 24k miles. \$27,500 OBO. 925-516-3759

CABOVER Camper, self contained. Runs on 12V, 110V or gas. Fits full size truck with 8ft bed. Older model. \$300 OBO. 925-961-0153

1974 - I.H. Scout II 4x4, wench, straight body, not running. Great first car project. No time. Must sell. \$1000.00 OBO 925-449-5626

VACATION RENTALS

SOUTH LAKE TAHOE - 3 Bedroom 2 bath Chalet, newly remodeled, nicely furnished, all amenities, off-season rates now in effect, Reserve Now! 209-599-4644

Bass Lake Vacation Rental, Sleeps 8, jacuzzi, pets OK. Avail. starting May/02. LLNL rates-10% less. 559-642-3600

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

WANTED

Pool Table wanted, full size, in good condition. 925-634-0423

Small slide sorting table. 209-531-1527

Troy-built tiller. 209-892-6186

Single or 3-speed bike in good condition for use around town. 925-462-5202

WANTED: General Mills Box Tops for Education. Collecting for school library. Send to L.Positeri at L-728. Collecting year round - ongoing fundraiser. 209-576-7560

Flutist looking for a piano accompanist. Music would include pop, light classical and early 50s. Bob. 925-838-9302

Need Car Body Work Performed, Sand And Paint Bondo On Side Of Car. Match Paint. Experience Preferred. 209-239-3029

Sliding glass door, dog door flap. Minimum 11 inches wide by 23 inches tall opening 925-961-0153

Garage door opener w/remotes. 925-961-0153

Wanted BANANA TREE for my new back yard. 209-492-0270

Lab scientists gather to celebrate 25 years of HEA

By Anne M. Stark

NEWSLINE STAFF WRITER

When the Health and Ecological Assessment Division first came into existence, it fell under the umbrella of the Biomedical and Environmental Research Program. During the next 25 years, it would fall under many other programs and directorates before landing in the Energy and Environment Directorate today.

To celebrate its 25 years at the Laboratory, HEA staff members gathered Thursday to take a look at how far they've come and where they are going.

Officially, HEA was organized in September of 1976, but in the wake of Sept. 11 and ensuing events last year HEA waited until this spring to hold its anniversary event.

In a memo dated Sept. 29, 1976, Director Roger Batzel reorganized the Biomedical and Environmental Research Program into the Biomedical Sciences Division with Mort Mendelsohn at the helm and the Environmental Sciences Division with Ed Morimoto leading the team.

HEA was born from this reorganization as part of Environmental Sciences.

Though work on the effects and consequences of nuclear weapons testing began in the early 1960s, it wasn't until the mid 1970s, with new energy-related funding, that the staff grew to support a division-sized organization, said David Layton, HEA division leader.

Some of the early HEA projects are coming around to have just as much impact today as they did in the late-1970s, Layton said.

For example, Layton conducted a study on water supply issues of geothermal development in the Imperial Valley that included a detailed analysis of impacts on the Salton Sea. And, he said, just a few



FRANK NUNEZ/TID

Health and Ecological Assessment Division Leader David Layton participates in his division's 25th anniversary celebration Thursday afternoon.

weeks ago, he served as part of a team in the E&E Directorate looking at how water conservation efforts in the Imperial Valley might influence the sea.

In addition, as a result of studies on water quality conducted in the 1980s for the U.S. military, HEA is now preparing to work on water security issues such as the assessment of health risks if a domestic water supply was contaminated.

"It's a very interesting cycle as a result of 9-11," Layton said. "At a national level, the expertise of HEA scientists is needed. As we look back 25 years, we can see some cycles—the initial origins of the division were national security-related and now many years later we find ourselves again using our capabilities to address security issues."

During the 1970s, HEA scientists focused on energy technologies because of the energy crisis. Work also began on the Marshall Islands Dose

Assessment and Radioecology Program, where scientists studied the radiological consequences of nuclear weapons testing as well as methods of ensuring a safe resettlement of contaminated islands. That program continues today.

Citizen concern over uncontrolled or abandoned hazardous waste sites prompted Congress to establish the Superfund Program in 1986 to locate, investigate and clean up the worst sites nationwide. The Lab was deemed a Superfund site because of its former use as a naval air station. HEA scientists performed the initial risk assessment of the LLNL site and have since conducted research on a variety of topics involving toxic substances in the environment.

In the 1990s, HEA created the Geographic Information Science group. The group develops geospatial information in layers from a variety of sources, including satellite imagery, for statistical and other analyses.

The Center for Accelerator Mass Spectrometry was added to the division in 1996, and its staff has continued in its long-standing tradition of developing and applying new measurement capabilities that support research topics in fields ranging from biology to paleoclimatology.

Layton envisions the future of HEA in national security (e.g., water security), energy (discovering and evaluating new fuels and additives) and the environment (studies concerning the environmental chemistry and toxicology of hazardous substances in air, water, sediments, and soils).

SAFE

Continued from page 1

The study was commissioned by the FBI's Counterterrorism Division as part of an ongoing effort to increase the ability to predict violence. Among the goals of these efforts is the prevention of incidents like the terrorist bombing of Centennial Olympic Park at the 1996 Olympic Games.

The ground-breaking study is a synthesis of law enforcement and mental health techniques. Its purpose was to get "Inside the Terrorist Mind," the title of her presentation.

Puckett began by pointing out that terrorism was recognized as a major problem in this country well before 9/11. Her first example was John Brown's abolitionist extremism, which resulted in five deaths in 1856 in Lawrence, Kansas.

"A lot of people at the time said, 'Was he crazy? Was he a martyr? Was he a saint?'" Puckett said.

Since then, law enforcement officials have been asking the same questions about many other people. Lately, these people have included Theodore Kaczynski, known as the "Unabomber"; Timothy McVeigh, who killed 168 people when he bombed the Murrah Federal Building in Oklahoma City in 1995; and Eric Rudolph, who was responsible for the Centennial Olympic Park bombing in Atlanta as well as bombings at a gay nightclub and at an abortion clinic, also in Atlanta, in 1997. Rudolph is still on the FBI's "Most Wanted" list.

Puckett's study included 10 terrorists. She

included eight of these to illustrate her points in Tuesday's presentation.

The FBI knew a lot about domestic terrorist groups in the United States before her study was completed in late 2001, but it didn't know what was in the minds of lone terrorists who appeared to act outside the framework of such groups. Without such knowledge, taking preemptive measures was largely guesswork. Puckett told how the study began by looking at the differences, and then the similarities, of the 10 people she studied.

"To all appearance, they were more different than similar. Their ages were all over the map. Some were only children, some were eldest, some were middle, some were youngest. Some had absent fathers, some were children of divorce, some came from intact families. They were all average to above-average intelligence."

Puckett and her colleagues looked at the similarities: "They had few friends as children. They were very often quiet and withdrawn. They were increasingly described by others as being loners."

Another significant similarity is that these people tried unsuccessfully to join terrorist groups. Either these groups rejected them, or they rejected the groups. In the McVeigh case, for example, there was evidence that both McVeigh and Terry Nichols tried repeatedly to join terrorist groups. The Michigan Militia, for example, rejected them because they were too militant.

"What do you do if you share the ideology of a terrorist group, you believe in the ideology very strongly, and you're angry, you have some bones to pick with society, but...the group won't have you or you won't fit into the

group?" Puckett asked.

"What we found with these lone offenders is that they essentially connected and attached to the thing that would never turn its back on them, or let them down, or reject them because they didn't fit in. They became very attached to their ideology."

However, they did what they did for psychological reasons as much as ideology, she said.

"All these people wanted to matter. They didn't get to matter as part of a group. So to matter, they had to do something bigger — on a societal level."

While the purpose of Puckett's study and her presentation was to address law enforcement's concerns about terrorism and preemptive measures, she concluded with a call for non-law enforcement assistance.

"Catching terrorists and defeating acts of terrorism can't be accomplished by law enforcement alone." The number of FBI agents in the world is somewhere around 11,000, she said — less than half the number of PG&E employees, for example.

"Awareness and vigilance is really advised, especially in these times. Community awareness is key."

She said that in almost every case she studied, the terrorists talked about doing their acts well before they actually did them.

"If you see or hear something that bothers you, you could give SAFE a call (at 2-5557). We're here for the people at the Lab. A lot of us are former law enforcement officers, but we're not law enforcement. Give us a call anytime there's something that warrants your concern or ours."

Videotapes of the presentation will be available from the SAFE office, 2-5557.



THE BACK PAGE

DIRECTORS OFFICE

Continued from page 1

Michael Anastasio, deputy director for strategic operations, has directed us to take aggressive actions to improve processes that we control internally. "We must set the example that we can improve our own operational efficiency, while we continue to work with the NNSA to streamline the overall system."

Unraveling and modifying work processes and requirements to improve efficiency, but maintain high standards for mission, safety, security and stewardship performance are commitments to be achieved over the next several months.

Ideas, comments and concerns are still being sought from employees. To provide feedback, an e-mail hotline, streamline@llnl.gov, has been established. Merna Hurd, Lee Younker and Lynn Cleland will review input to determine the best ways to utilize the information.

In order to keep you abreast of NNSA and our progress, articles on specific steps taken to improving operations will be reported in *Newsline* every few weeks. In addition, senior managers are actively involved with the NNSA Task Groups including Standards/Requirements, Performance Measures,

Internal streamlining focus areas

- **Streamline ISM**
 - IWS forms, work authorization levels, review processes
 - ISM requirements for procurements
 - Non-nuclear facilities ISM requirements
- **Improve internal decision-making processes**
 - Reduce signature requirements
 - Restructure committees
- **Streamline review and release process**
- **Improve facility and project management processes**
 - Revitalize experimental science
 - Streamline WFO program processes
 - Review LDRD processes
 - Security management — interactions with foreign nationals, foreign travel, clearances
 - Assess training requirements
 - Redesign hiring processes

The above table lists focus areas of the workload reduction effort. The bold items indicate initiatives that are already underway. The remaining items are longer term focus areas.

Oversight and Reporting, PPBES/Budgeting and Security Clearances. Status on these activities will

also be provided.

CARRIGAN

Continued from page 1

tation as a leader in geophysics.

"Cambridge has expertise in fluid mechanics and earth sciences that is world class," he said. "I stand to benefit significantly by interacting with them and also hope to establish a long term technical relationship that is beneficial to both the Lab and Cambridge."

So Carrigan, group leader of the subsurface flow and transport group in the Energy & Environment Directorate, will take a year off from the Lab for professional and teaching leave to work at Cambridge. He plans on taking his wife and fourth grade son with him while he rents out his home in Tracy.

"Our little boy will spend the fifth grade in an English school," Carrigan said. "We feel very for-

tunate to have this opportunity."

The Fulbright Program was established in 1946 under legislation introduced by former Sen. J. William Fulbright of Arkansas. After World War II, Fulbright viewed the program as a vehicle for promoting mutual understanding between the people of the United States and the people of other countries of the world.

The Council for International Exchange of Scholars estimates that universities garner the majority of awards. In 2000, for example, several prestigious universities earned a number of the awards, with MIT garnering five, Purdue earning five and UC Berkeley receiving two.

"For a researcher like Charles to receive this award is a huge personal and professional accomplishment," said Robin Newmark, acting division leader of the Geosciences and Environmental Technologies Division.

Fulbright grants are made to U.S. citizens and

nationals of other countries for a variety of educational activities, primarily university lecturing, advanced research, graduate study and teaching in elementary and secondary schools. The Fulbright Program awards approximately 4,500 new grants annually.

Since 1946, more than 250,000 participants, 94,000 from the United States and 155,600 from other countries, have observed each other's political, economic and cultural institutions.

The primary source of funding for the Fulbright Program is an annual appropriation by the U.S. Congress. Foreign governments and private organizations contribute through cost-sharing and indirect support, such as salary supplements, tuition waivers, university housing, etc. The Congressional appropriation for the Fulbright Program in fiscal year 2002 is \$119 million. Foreign governments contribute an additional \$28 million directly to the Fulbright Program.

DDLs

Continued from page 1

University of Leicester in England and Tuesday's featured speaker. "This is evidence of what people were doing at the time."

Ruggles' talk focused on archeological monuments and their relationship with the cosmos.

His discussion titled "Archaeoastronomy — Stonehenge and Beyond" enticed the audience Tuesday with examples of ancient monuments that have some tie to the lunar or solar cycles. For example, the building of a wooden trackway in England in 500 B.C. correlates with prominent lunar eclipses at the time.

"If astrological events influenced people, then we have to ask ourselves where and when," Ruggles said. In ancient monuments archaeologists can begin to understand "how people conceived of space and time. We can look at the diversity of how people observed the cosmos around them."

Ruggles believes ancient perceptions of space, time and the cosmos provide insight into life in prehistoric times. The sky was an integral part of the environment by which time was measured and space organized. Figures of cosmological importance often originated in the sky.

He pointed to ancient Mayan pyramids in Mexico as evidence of the link between artifacts and the sky. The pyramids contain hieroglyphics that indicate a Mayan astronomical almanac with an eclipse table.

"There is a whole list of artifacts that support archaeoastronomy, the study of beliefs and practices about the history of the sky," Ruggles said.

Archaeologists are measuring monuments throughout southern Europe to gauge whether the orientation or placement of the monuments has any significance in relationship to the lunar or solar cycles. He said a colleague has measured one of the Tomb of Giants: Li Lolghi is Sardinia's largest Giant's Tomb (tomba di giganti). These monuments were constructed all over the island from about 1900 B.C. to about 1000 B.C.

This collective burial chamber is very long, with a series of uprights, and it was once covered with stones or earth. The tomb features a horned semi-circular forecourt that was probably used as a meeting place for rituals. Ruggles noted that the monuments all face the sunrise. He said there is likely a connection between this burial site and the placement of the sun.

The job of an archaeoastronomer, he said, is not to look for monuments aligning with something in the cosmos because "you'll always find something that aligns." But rather a true archaeoastronomer must look for trends and contextual information.

"We need to look at the diversity of how people observed the cosmos around them," Ruggles said. "We have to look at it and understand that there are different systems of thought."

Ruggles' talk will be rebroadcast on Lab TV on Thursday at 10 a.m., noon, 2 p.m., 4 p.m. 8 p.m. and on April 5 at 4 a.m. For a tape of the program, call Lab TV at 3-3846.



Newsline
UC-LLNL
PO Box 808, L-797
Livermore, CA 94551-0808